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ABSTRACT OF THE DISCLOSURE

A wraparound delay amount detecting part calculates a cross-correlation r(k) from an output speech signal " a_i " supplied to a loudspeaker and an input speech signal " b_i " inputted through a microphone array to obtain a delay amount "d" of a wraparound speech signal. The delay processing part generates a speech signal " a_{i-d} " obtained by delaying the output speech signal " a_i " by the delay amount "d". Even if there is a change in delay amount due to the variation in environment, appropriate delay processing can be conducted by the delay processing part. In an adaptive filter, an estimated wraparound speech signal a_{i-d} is generated from the speech signal " a_{i-d} " subjected to delay processing. A subtracter subtracts the estimated wraparound speech signal a_{i-d} from the input speech signal " b_i " to generate an echo cancellation signal " e_i ". A coefficient updating part updates the coefficient of the adaptive filter.